

DISTRIBUTED SECURITY FOR INDUSTRIAL NETWORKS

ABSTRACT

5 Distributed security for industrial networks is achieved through the implementation of
Security Policy Implementation Points (SPIPs) on the network to apply security policy in a
distributed fashion to prevent network users from taking action in particular areas of the network.
The SPIP integrates with network services to perform authentication and authorization services
on behalf of particular factory machines, groups of factory machines, and other industrial
10 network resources. The SPIP also maintains a local access policy to enable emergency access to
the factory machines as well as enable local access to attendant programmable logic controllers.
The SPIP also includes audit functionality to enable the SPIP to record local accesses and
network accesses to maintain a log of users and network devices that have interfaced with the
SPIP. The SPIP may also support VPNs, encryption, compression, and numerous other
15 functions to engage in communications on the network.